

39-AA-0005

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 94-259

WASTE DISCHARGE REQUIREMENTS
FOR
COUNTY OF SAN JOAQUIN
CLOSURE AND POST CLOSURE MAINTENANCE OF
CORRAL HOLLOW SANITARY LANDFILL
CLASS III LANDFILL
SAN JOAQUIN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board), finds that:

1. The San Joaquin County Department of Public Works (hereafter Discharger) owns and operates the Corral Hollow Sanitary Landfill. The facility was previously regulated by Waste Discharge Requirements Order No. 89-046 in conformance with Title 23, California Code of Regulations (CCR), Division 3, Chapter 15 (hereafter Chapter 15). Order No. 89-046 was amended 17 September 1993 by Order No. 93-200 implementing State Water Resources Control Board Resolution No. 93-62 and federal municipal solid waste regulations. The Discharger proposed a new monitoring program on 24 June 1992 and submitted a Water Quality Protection Standard Report on 29 December 1993. These waste discharge requirements combine information from previous waste discharge requirements (WDRs), Order No. 89-046, amendments made by Order No. 93-200, and an Article 5 Monitoring Program proposed by the Discharger.
2. The site consists of 57.71 acres, of which 42.79 are permitted for landfilling. The site is comprised of Assessor Parcels No. 253-030-005, -006, -007 and portions of 253-030-002. The facility is owned and operated by the San Joaquin County, Department of Public Works. The facility is five miles south of Tracy, in Section 18, T3S, R5E, MDB&M, as shown on Attachment A, which is incorporated herein and made part of this Order.
3. The site consists of a single landfill containing 4 modules, as shown on Attachment B, which is incorporated herein and made a part of this Order. The site does not have a liner and a leachate collection and removal system (LCRS).

WASTES AND THEIR CLASSIFICATION

4. The Discharger proposes to continue to discharge municipal solid waste including residential, commercial, construction, demolition, and agricultural wastes and tires, for disposal in the Class III Landfill. These wastes are classified as 'nonhazardous

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solid waste' and 'inert waste' using the criteria set forth in Chapter 15. The discharge rate is about 1800 cubic yards (or 331 tons) per day.

DESCRIPTION OF SITE

5. Land within 1,000 feet of the site is primarily used for pasture land with a small amount of agriculture.
6. The climate in the area is typical of that in the Sacramento Valley. Summers are hot and dry, and winters are mild and wet, with the most precipitation in the months from November to March.
7. There are several faults in the area of the landfill. These include the Tesla Fault, the Livermore Fault, and the Calaveras Fault. The fault that would most likely be the source of the maximum probable earthquake (MPE) is the Calaveras Fault. The MPE for this fault was calculated by Kleinfelder & Associates in a report called "Geologic Investigation, Foothill Sanitary Landfill, San Joaquin County, March 1988". The value of the MPE was given as 7.0 on the Richter scale. This would produce a maximum average peak horizontal ground acceleration of 0.20g.
8. There are three distinct alluvial units underlying the site. The upper unit immediately underlying the landfill consists of semi-consolidated sand-gravel mixtures from 1 to 10 feet thick. Underlying these is the Corcoran Clay which is approximately 50 feet thick beneath the east side of the site, and thins rapidly and pinches out near the western edge of the site. The lowest unit is a clay-sand matrix supported gravel which is at least 200 feet thick.
9. The ground water monitoring reports show a ground water mound underneath the landfill with the ground water gradient in the shallow aquifer indicating bi-directional flow to the northwest and southeast. The monitoring wells in the deep aquifer were dry in 1991, 1992, and 1993. The aquifers are separated by the Corcoran Clay member of the Tulare Formation. Depth to ground water is approximately 70 feet in the shallow aquifer and 320 feet in the deep aquifer.
10. The ground water monitoring network detected a release of wastes to ground water in 1991. Since 1991, pollutants found in ground water include: trichlorofluoromethane (Freon 11), tetrachloroethane (PCE), dichlorodifluoromethane (Freon 12), and methylene chloride. Ground water samples from wells MW-4 and MW-5 exhibit

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similar levels of iron, nitrate, alkalinity, total organic carbon, and pH. Samples from MW-4 exhibit higher levels of chlorides, TDS, sulfate, and electrical conductivity than samples collected from well MW-5.

11. The Discharger proposes to close and cap the landfill. Closure and capping will serve as part of a corrective action.
12. The beneficial uses of ground water are domestic, municipal, agricultural, and industrial supply.
13. The facility receives an average of 8 inches of precipitation per year.
14. The 100-year, 24-hour precipitation event for the facility is 2.3 inches, as calculated by the Department of Water Resources (DWR) from precipitation readings collected at the Tracy 2 SSE weather station.
15. A portion of the toe of the landfill's southern slope is within the 100-year flood zone. This area will be covered with rip-rap for protection from erosion. The drainage facilities will be sized to accommodate the volume and peak flow rate expected from a storm having a 100-year, 24-hour frequency event. The site has a perimeter drainage ditch system encircling the top of the landfill, and two sedimentation ponds capable of handling storm water from a 100-year, 24 hour storm.
16. Surface drainage is to Corral Hollow Creek, an intermittent stream.
17. The beneficial uses of surface waters are domestic, municipal, agricultural, and industrial supply; ground water recharge; aesthetic enjoyment; and preservation and enhancement of fish, wildlife and other aquatic resources.

OPERATION OF FACILITIES

18. Refuse is compacted in two-foot thick layers, and refuse slopes do not exceed 3:1 (horizontal:vertical). Within 24 hours, all waste is covered with at least six inches of daily cover. Landfill areas which do not receive waste for greater than 180 days is covered with an intermediate cover one-foot thick.

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19. The Discharger's current plans indicate that the existing landfill will reach capacity in the Spring of 1995. Final Closure and Post Closure Maintenance Plans, dated November 1992, were revised and resubmitted on 5 May 1993.

CEQA AND OTHER CONSIDERATIONS

20. The action to revise WDRs for this facility is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.), in accordance with Title 14, CCR, Section 15301.
21. On 9 October 1991, the United States Environmental Protection Agency (USEPA) promulgated regulations (Title 40, Code of Federal Regulations, Parts 257 and 258, "federal MSW regulations" or "Subtitle D") that apply, in California, to dischargers who own or operate Class II or Class III landfill units at which municipal solid waste (MSWLF) is discharged. The majority of the federal MSW regulations became effective on the "Federal Deadline", which is 9 October 1993.
22. This Order implements
- a. the Water Quality Control Plan for the Sacramento River, Sacramento-San Joaquin Delta and San Joaquin River Basins (5A, 5B, 5C), Second Edition;
 - b. the prescriptive standards and performance goals of Chapter 15, Division 3, Title 23 of the California Code of Regulations, effective 27 November 1984, and subsequent revisions;
 - c. the prescriptive standards and performance criteria of Part 258, Title 40 of the Code of Federal Regulations (Subtitle D of the Resource Conservation and Recovery Act); and
 - d. State Water Resources Control Board Resolution No. 93-62, Policy for Regulation of Discharges of Municipal Solid Waste, adopted 17 June 1993.

PROCEDURAL REQUIREMENTS

23. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.
24. The Board has notified the Discharger and interested agencies and persons of its intention to revise the waste discharge requirements for this facility.

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25. In a public hearing, the Board heard and considered all comments pertaining to this facility and discharge.

IT IS HEREBY ORDERED that Order No. 89-046 is rescinded and Attachment I of Order 93-200 is amended to delete San Joaquin County (for the Corral Hollow Sanitary Landfill), and it is further ordered that San Joaquin County and its agents, assigns and successors, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of 'hazardous waste' or 'designated waste' at this site is prohibited. For the purposes of this Order, 'hazardous waste' and 'designated waste' are as defined in Chapter 15 and described in Monitoring and Reporting Program No. 94-259.
2. Discharge of waste outside the 9 October 1993 footprint is prohibited.
3. The discharge to landfill units of liquid or semi-solid waste (i.e., waste containing less than 50% solids), except dewatered sewage or water treatment sludge as provided in Section 2523(c) of Chapter 15, is prohibited.
4. The discharge to landfill units of solid waste containing free liquid or moisture in excess of the waste's moisture holding capacity is prohibited.
5. The discharge of containerized liquids at this facility is prohibited.
6. The discharge of fuel products or cleaning solvents to the ground or surface waters is prohibited.
7. The discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses, or to ground water is prohibited.
8. The discharge of waste to ponded water from any source is prohibited.

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9. The discharge of waste within 50 feet of surface waters not related to landfill drainage structures is prohibited.
10. The discharge of wastes which have the potential to reduce or impair the integrity of containment structures or which, if commingled with other wastes in the unit, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products which in turn:
 - a. require a higher level of containment than provided by the unit;
 - b. are restricted 'hazardous wastes'; or
 - c. impair the integrity of containment structuresis prohibited.

B. DISCHARGE SPECIFICATIONS

General Specifications

1. Wastes shall only be discharged into, and shall be confined to, the landfill specifically designed for their containment.
2. All wells within 500 feet of a waste management unit shall be sealed or abandoned to the satisfaction of the San Joaquin County Public Health Department prior to the discharge of waste to the unit. A record of the sealing and/or abandonment of such wells shall be sent to the Board and to the State Department of Water Resources.
3. Municipal solid waste shall be discharged to that portion of the waste management unit which received wastes (i.e., that active portion of the waste management unit which is within the boundaries of the Existing Footprint), prior to 9 October 1993.

Protection From Storm Events

4. Precipitation and drainage control systems shall be designed, constructed and maintained to accommodate the anticipated volume of precipitation and peak flows from surface runoff under 100-year, 24-hour precipitation conditions.

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5. Waste management units shall be designed, constructed and operated in compliance with precipitation and flood conditions contained in the Standard Provisions and Reporting Requirements referenced in Provision D.1, below.
6. Annually, prior to the anticipated rainy season, any necessary erosion control measures shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding of the site and to prevent surface drainage from contacting or percolating through wastes.
7. If located in a 100-year floodplain, landfill units shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human health and the environment. Those units which cannot comply with this requirement shall close by October 9, 1996, unless otherwise extended by the Board (40 CFR 258.16).

Landfill Closure Specifications

8. Design of the landfill cap shall include a Construction Quality Assurance Plan, which shall:
 - a. be submitted for review and approval by the Board staff prior to construction;
 - b. demonstrate that the landfill cap has been constructed according to the specifications and plans as approved by the Board staff; and
 - c. provide quality control on the materials and construction practices used to construct the waste management unit and prevent the use of inferior products and/or materials which do not meet the approved design plans or specifications.
9. The landfill cap shall have a hydraulic conductivity of 10^{-6} cm/s or less and a minimum relative compaction of 90%. Hydraulic conductivities of cap materials shall be determined by laboratory tests using water. Hydraulic conductivities determined through laboratory methods shall be confirmed by

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field testing in accordance with the Standard Provisions and Reporting Requirements as described in Provision D.1.

10. At closure, the landfill shall receive a final cover consisting, at a minimum, of a two-foot thick foundation layer which may contain waste materials, overlain by a one-foot thick clay liner, and finally by a one-foot thick vegetative soil layer, or an engineered equivalent final cover approved by the Board in waste discharge requirements pursuant to Subsections 2510(b) and (c) of Chapter 15.
11. Vegetation shall be planted and maintained over each closed landfill unit. Vegetation shall be selected to require a minimum of irrigation and maintenance and shall have a rooting depth not in excess of the vegetative layer thickness.
12. Closed landfill units shall be graded to at least a three percent grade and maintained to prevent ponding.

C. RECEIVING WATER LIMITATIONS

Water Quality Protection Standards

The concentrations of Constituents of Concern in waters passing through the Points of Compliance shall not exceed the Concentration Limits established pursuant to Monitoring and Reporting Program No. 94-259, which is attached to and made part of this Order.

D. PROVISIONS

1. The Discharger shall comply with the Standard Provisions and Reporting Requirements, dated September 1993, which are hereby incorporated into this Order. The Standard Provisions and Reporting Requirements contain important provisions and requirements with which the Discharger must comply. A violation of any of the Standard Provisions and Reporting Requirements is a violation of these waste discharge requirements.
2. The Discharger shall comply with all applicable provisions of 23 CCR Chapter 15 and 40 CFR Part 258 that are not specifically referred to in this Order.

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3. The Discharger shall comply with Monitoring and Reporting Program No. 94-259, which is attached to and made part of this Order. This compliance includes, but is not limited to, maintenance of waste containment facilities and precipitation and drainage controls and shall continue to monitor ground water and surface waters, throughout the active life of the waste management units and the post-closure maintenance period. A violation of Monitoring and Reporting Program No. 94-259 is a violation of these waste discharge requirements.
4. The Discharger shall maintain legible records of the volume and type of each waste discharged at the landfill and the manner and location of the discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.
5. The Discharger shall provide proof to the Board **within sixty days after completing final closure** that the deed to the landfill facility property, or some other instrument that is normally examined during title search, has been modified to include, in perpetuity, a notation to any potential purchaser of the property stating that:
 - a. the parcel has been used as a municipal solid waste landfill (MSWLF);
 - b. land use options for the parcel are restricted in accordance with the post-closure land uses set forth in the post-closure plan and in WDRs for the landfill; and
 - c. in the event that the Discharger defaults on carrying out either the post-closure maintenance plan or any corrective action needed to address a release, then the responsibility for carrying out such work falls to the property owner.

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6. The post-closure maintenance period shall continue until the Board determines that remaining wastes in the landfill will not threaten water quality.
7. The Board will review this Order periodically and may revise these requirements when necessary.
8. The Discharger shall complete the tasks outlined in these WDRs and the attached Monitoring and Reporting Program No. 94-259 in accordance with the following time schedule:

<u>Task</u>	<u>Compliance Date</u>
a. Submit an Engineering Feasibility Study for a corrective action program pursuant to Section 2550.8(k)(6) of Chapter 15.	15 March 1995
b. Submit a Corrective Action Program pursuant to Section 2550.10 of Chapter 15.	15 March 1995

E. REPORTING REQUIREMENTS

1. The Discharger shall comply with the reporting requirements specified in this Order, in Monitoring and Reporting Program Order No. 94-259 and in the Standard Provisions and Reporting Requirements.
2. The Discharger shall submit a closure and post-closure maintenance plan (or submit suitable modifications to a pre-existing plan), that complies with 40 CFR 258.60 and 258.61, with Article 8 of Chapter 15 and with Title 14, CCR.
3. The Discharger shall notify the Board in writing of any proposed change in ownership or responsibility for construction or operation of the landfill. The Discharger shall also notify the Board of a material change in the character, location or volume of the waste discharge and of any proposed expansions or closure plans. This notification shall be given 90 days prior to the effective date of the change and shall be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with these WDRs.

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4. In the event of any change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator in writing of the existence of this Order. A copy of that notification shall be sent to the Board.
5. The Discharger shall submit a status report regarding the financial assurances for corrective action and closure every five years after the date of adoption of these requirements that either validates the ongoing viability of the financial instrument or proposes and substantiates any needed changes.

I, WILLIAM H. CROOKS, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 16 September 1994.



WILLIAM H. CROOKS, Executive Officer

Attachments
SER/EAS:sjs